

INHOMOGENEOUS MATERIALS HAVING PHYSICAL PROPERTIES
DECOPULED FROM DESIRED FUNCTIONS

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ABSTRACT

A composition comprises a first component that provides a predetermined response to radiation, and a second component. Upon curing of the composition, portions of the first component bind together portions of the second component to form an inhomogeneous material having physical properties substantially determined by the second component. The function provided by the first component's response to radiation and the macroscopic properties determined by the second component are largely decoupled and thus may be separately optimized. Some embodiments provide photo-patternable low dielectric constant materials that may be advantageously employed in metal interconnect layers in integrated circuits, for example.